

CLAIMS

1. A method of manufacturing an introducer sheath, comprising:
positioning a first polymeric sleeve over a mandrel, the first polymeric
sleeve comprising a first striped extrusion arranged in a generally helical pattern
5 along the first sleeve;

positioning a second polymeric sleeve over the first sleeve, the second
polymeric sleeve comprising a second striped extrusion arranged in a generally
helical pattern along the second sleeve, the first and second polymeric sleeves
being axially aligned such that said second striped extrusion is superposed over
10 said first striped extrusion to define a generally braid-like configuration; and
heating the first and second polymeric sleeves.

2. The method of claim 1, wherein said first striped extrusion
comprises a plurality of extruded first stripes formed in said first polymeric sleeve,
15 each said first stripe spaced from an adjoining stripe and arranged in said generally
helical pattern, and said second striped extrusion comprises a plurality of extruded
second stripes formed in said second polymeric sleeve, each said second stripe
spaced from an adjoining stripe and arranged in said generally helical pattern.

3. The method of claim 1, wherein at least one of said first and second
striped extrusions is provided along an outer surface of the respective first and
20 second polymeric sleeves.

4. The method of claim 1, wherein at least one of said first and second
striped extrusions is provided along an inner surface of the respective first and
25 second polymeric sleeves.

5. The method of claim 1, wherein the first striped extrusion is
provided along an outer surface of the circumference of the first polymeric sleeve,

and the second striped extrusion is provided along an inner surface of the second polymeric sleeve.

5 6. The method of claim 1, wherein the first polymeric sleeve is co-extruded with the first striped extrusion, and the second polymeric sleeve is co-extruded with the second striped extrusion.

10 7. The method of claim 1, comprising positioning an inner liner over the mandrel intermediate the mandrel and the first polymeric sleeve.

15 8. The method of claim 7, comprising:
 positioning a coil over the inner liner, the coil having a plurality of coil turns; and
 bonding the first polymeric sleeve to the inner liner between the coil turns by the heating.

20 9. The method of claim 8, comprising:
 positioning a heat shrink tube over the assembly comprising the mandrel, inner liner, coil, and first and second sleeves;
 carrying out the heating step in the heat shrink tube in a manner such that the first and second striped extrusions maintain the braided configuration; and
 removing the sheath from the mandrel and the heat shrink tube.

25 10. The method of claim 1, wherein at least one of said polymeric sleeves comprises at least two sleeve segments.

30 11. An introducer sheath, comprising:
 a first polymeric sleeve comprising a first striped extrusion arranged in a generally helical pattern along the first sleeve; and
 a second polymeric sleeve positioned over said first polymeric sleeve and bonded thereto, said second polymeric sleeve comprising a second striped

extrusion arranged in a generally helical pattern along the second sleeve, the first and second polymeric sleeves being axially aligned such that said second striped extrusion is superposed over said first striped extrusion to define a generally braid-like configuration.

5

12. The introducer sheath of claim 11, the first striped extrusion comprising a plurality of extruded spaced apart first stripes formed in the first polymeric sleeve and arranged in the generally helical pattern, and the second striped extrusion comprising a plurality of extruded spaced apart second stripes formed in the second polymeric sleeve and arranged in the generally helical pattern.

10

13. The introducer sheath of claim 11, the first and second polymeric sleeves being coaxially aligned in a manner such that a pitch of the first striped extrusion is aligned in an opposite direction from a pitch of the second striped extrusion.

15

14. The introducer sheath of claim 11, further comprising an inner liner disposed with a lumen of the first polymeric sleeve and bonded thereto.

20

15. The introducer sheath of claim 14, further comprising a coil fitted over said inner liner, said coil having a plurality of coil turns extending longitudinally around said inner liner, said first polymeric sleeve bonded to said inner liner between turns of said coil.

25

16. The introducer sheath of claim 11, wherein at least one of said first and second polymeric sleeves is formed from a polymer selected from the group consisting of polyamides, polyether block amides, polyethylene, polyurethane and mixtures of the foregoing.

30

17. The introducer sheath of claim 11, wherein at least one of said first and second striped extrusions is formed from a polymer selected from the group consisting of polyamides, polyether block amides, polyethylene, polyurethane, fiberglass strands and thin wire strands.

5

18. The introducer sheath of claim 16, wherein at least one of said first and second striped extrusions is formed from the same polymer that forms said respective first and second polymeric sleeve.

10 19. The introducer sheath of claim 11, wherein at least one of said polymeric sleeves comprises at least two sleeve segments.

15 20. The introducer sheath of claim 19, wherein each of said polymeric sleeves comprises a plurality of sleeve segments, said sleeve segments in each said polymeric sleeve being arranged in order of decreasing durometer from a proximal end to a distal end of said polymeric sleeve.